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(54) Title: T-CELL MEMBRANE PROTEIN (TIRC7), PEPTIDES AND ANTIBODIES DERIVED THEREFROM AND USES THEREOF

## (57) Abstract

Described are generally a T-cell immune response cDNA 7 (TIRC7)encoding a T-cell transmembrane protein as well as peptides and polypeptides derived therefrom and antibodies recognizing said (poly)peptides. More particularly, peptide and polypeptide as well as antibodies being capable of inhibiting T-cell stimulation through the T-cell membrane protein (TIRC7) are provided. Furthermore, vectors comprising the aforementioned polynucleotides and host cells transformed therewith as well as their use in the production of the above-defined proteins, peptides or polypeptides are described. Additionally, pharmaceutical and diagnostic compositions are provided comprising any one of the afore-described polynucleotide, vector, protein, peptide, polypeptide, or antibody. Furthermore, methods and uses for modulating immune responses through the TIRC7 membrane protein as well as pharmaceutical compositions comprising agents which act on the TIRC7 membrane protein or its ligand are described. Also, the use of said polynucleotide, vector, protein, peptide, polypeptide, or antibody for the preparation of pharmaceutical compositions for use in organ transplantation, for the treatment of autoimmune, allergic or infectious diseases, or for treatment of tumors is provided. Furthermore, methods for modulating (antigen-specific) T-cell unresponsiveness inducing maintaining or reversing T-cell unresponsiveness by inhibiting or stimulating an (unresponsive) T-cell through the TIRC7 membrane protein are encompassed herein.

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